measurements are taken to represent the entire water column in the general absence of vertical stratification (Giese et al. 1979).

In order to place our data in historical perspective, we compared them with data taken by the North Carolina Division of Marine Fisheries (NCDMF) since 1981 as part of their cultch planting program. The NCDMF returned to each planting site at 3-6 month intervals for up to three years, collecting random samples of 30 shells (cultch) from planted beds and determining the number and size of spat on each shell. These data provide information on oyster density and an estimate of growth, because cultch is known to be free of oysters when planted. We report here on the interval between 1981 and 1987.

RESULTS

During our sampling intervals, water temperature in Pamlico and Core Sound fluctuated between 16°C and 30°C. Temperatures from May-November were similar at all sites and correlated well with continuous readings (Fig. 3) taken at the Duke University Marine Laboratory (DUML) dock near Beaufort Inlet (Fig. 2) ($r=0.87$, $n=239$, $P < 0.001$). However, summer temperatures at the low salinity sites tended to be somewhat higher than at the DUML dock. These sites are removed from the influence of oceanic inlets.

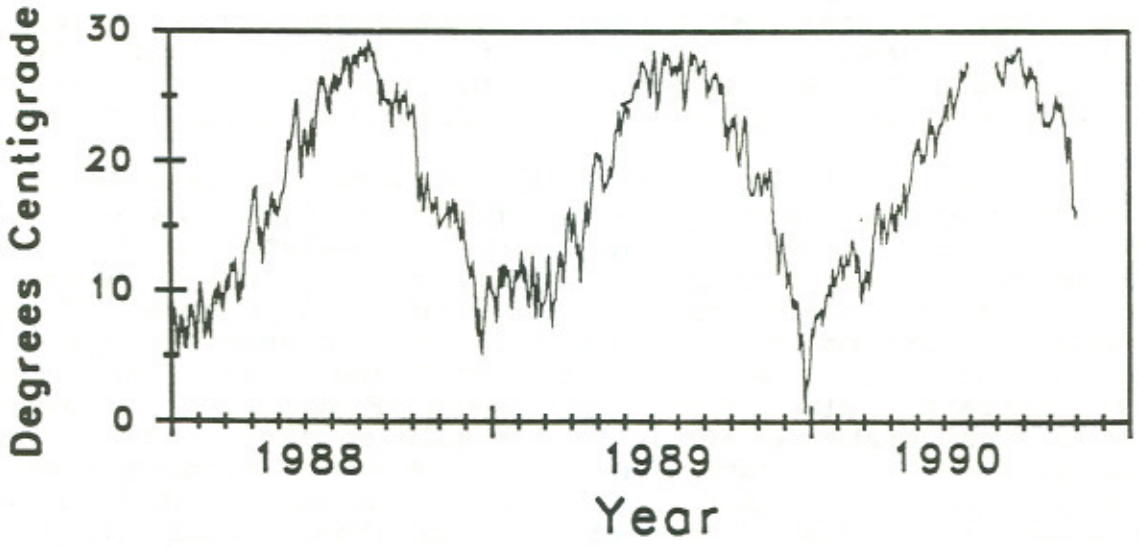

Figure 3. Daily average surface temperatures taken at the Duke University Marine Laboratory dock near Beaufort Inlet during 1988-1990.